

## Complete Summary

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### TITLE

Adult diabetes: percentage of patients with at least one LDL-C test.

### SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

## Brief Abstract

### DESCRIPTION

This measure assesses the percentage of adult diabetes patients aged 18-75 years receiving at least one low-density lipoprotein-cholesterol (LDL-C) test.

This measure is used for the purpose of public reporting. The measure is currently in use for public reporting through the National Committee on Quality Assurance (NCQA) HEDIS® Program.

### RATIONALE

Persons with diabetes are at increased risk for coronary heart disease (CHD). Lowering serum cholesterol levels can reduce the risk for CHD events.

American Association of Clinical Endocrinologists/American College of Endocrinology (AAACE/ACE) recommend that a fasting lipid profile be obtained during an initial assessment, each follow-up assessment, and annually as part of the cardiac-cerebrovascular-peripheral vascular module.

American Diabetes Association (ADA) recommends that a fasting lipid profile be obtained as part of an initial assessment. Adult patients with diabetes should be tested annually for lipid disorders with fasting serum cholesterol, triglycerides, high-density lipoprotein (HDL) cholesterol, and calculated low-density lipoprotein (LDL) cholesterol measurements. If values fall in lower-risk levels, assessments may be repeated every two years.

### PRIMARY CLINICAL COMPONENT

Diabetes mellitus; low-density lipoprotein-cholesterol (LDL-C)

### DENOMINATOR DESCRIPTION

All patients diagnosed with diabetes aged 18-75 years

#### NUMERATOR DESCRIPTION

The number of patients from the denominator with at least one low-density lipoprotein-cholesterol (LDL-C) test

#### Evidence Supporting the Measure

##### PRIMARY MEASURE DOMAIN

Process

##### SECONDARY MEASURE DOMAIN

Not applicable

##### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

##### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [The American Association of Clinical Endocrinologists medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update.](#)

#### Evidence Supporting Need for the Measure

##### NEED FOR THE MEASURE

Wide variation in quality for the performance measured

##### EVIDENCE SUPPORTING NEED FOR THE MEASURE

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. Endocr Pract 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

American Association of Clinical Endocrinologists. AACE medical guidelines for clinical practice for the diagnosis and treatment of dyslipidemia and prevention of atherogenesis. Endocr Pract 2000 Mar-Apr;6(2):162-213. [351 references]

Management of dyslipidemia in adults with diabetes. Diabetes Care 2002 Jan; 25(Suppl 1): S74-S77. [12 references]

Standards of medical care for patients with diabetes mellitus. Diabetes Care 2002 Jan; 25(Suppl 1): S33-49. [91 references]

#### State of Use of the Measure

##### STATE OF USE

Current routine use

##### CURRENT USE

Internal quality improvement

#### Application of Measure in its Current Use

##### CARE SETTING

Ambulatory Care  
Community Health Care  
Emergency Medical Services  
Managed Care Plans  
Physician Group Practices/Clinics

##### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Advanced Practice Nurses  
Physician Assistants  
Physicians

##### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

##### TARGET POPULATION AGE

Age 18-75 years

##### TARGET POPULATION GENDER

Either male or female

##### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

### INCIDENCE/PREVALENCE

- Total: 18.2 million people - 6.3% of the population - have diabetes
- Diagnosed: 13 million people
- Undiagnosed: 5.2 million people
- New cases diagnosed per year: 1.3 million
- About one third of these individuals do not know that they have the disease.

### EVIDENCE FOR INCIDENCE/PREVALENCE

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

### BURDEN OF ILLNESS

- Diabetes is the leading cause of end-stage renal disease, accounting for 43% of new cases. Adults with diabetes account for more than 60% of nontraumatic lower limb amputations and are also twice as likely to have heart disease than people without diabetes.
- Diabetes is the sixth leading cause of death listed on U.S. death certificates in 2000. This is based on the 69,301 death certificates in which diabetes was listed as the underlying cause of death. Altogether, diabetes contributed to 213,062 deaths.
- Complications from diabetes include heart disease, stroke, hypertension, retinopathy, end-stage renal disease, peripheral neuropathy, non-traumatic lower limb amputations, periodontal disease, pregnancy complications affecting mother and fetus, ketoacidosis, and coma.
- Persons with diabetes are at increased risk for coronary heart disease (CHD). Lowering serum cholesterol levels can reduce the risk for CHD events.

### EVIDENCE FOR BURDEN OF ILLNESS

American Association of Clinical Endocrinologists, American College of Endocrinology. Medical guidelines for the management of diabetes mellitus: the AACE system of intensive diabetes self-management--2002 update. Endocr Pract 2002 Jan-Feb;8(Suppl 1):40-82. [96 references]

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Standards of medical care for patients with diabetes mellitus. Diabetes Care 2002 Jan; 25(Suppl 1): S33-49. [91 references]

## UTILIZATION

Unspecified

## COSTS

- 2002 cost of diabetes in the United States: \$132 billion
- Direct medical costs: \$92 billion
- Indirect costs: \$40 billion (disability, work loss, premature mortality)

## EVIDENCE FOR COSTS

American Diabetes Association. Diabetes statistics. [internet]. Alexandria (VA): American Diabetes Association; [cited 2004 Jun 11]. [2 p].

National diabetes fact sheet: national estimates on diabetes. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion; 2003 [updated 2003 Dec 04]; [cited 2004 Feb 01]. [8 p].

## Institute of Medicine National Healthcare Quality Report Categories

### IOM CARE NEED

Living with Illness

### IOM DOMAIN

Effectiveness

## Data Collection for the Measure

### CASE FINDING

Users of care only

### DESCRIPTION OF CASE FINDING

All patients diagnosed with diabetes aged 18-75 years

#### DENOMINATOR SAMPLING FRAME

Patients associated with provider

#### DENOMINATOR (INDEX) EVENT

Clinical Condition

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

All patients diagnosed with diabetes aged 18-75 years

##### Exclusions

None

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

The number of patients from the denominator with at least one low-density lipoprotein-cholesterol (LDL-C) test

##### Exclusions

None

#### DENOMINATOR TIME WINDOW

Time window follows index event

#### NUMERATOR TIME WINDOW

Fixed time period

#### DATA SOURCE

Administrative data

Laboratory data

Medical record

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### PRE-EXISTING INSTRUMENT USED

None

## Computation of the Measure

### SCORING

Rate

### INTERPRETATION OF SCORE

Better quality is associated with a higher score

### ALLOWANCE FOR PATIENT FACTORS

Unspecified

### STANDARD OF COMPARISON

Internal time comparison

## Evaluation of Measure Properties

### EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

### ORIGINAL TITLE

Percentage of patients with at least one LDL-C test.

### MEASURE COLLECTION

[National Diabetes Quality Improvement Alliance Performance Measures](#)

### MEASURE SET NAME

[National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes](#)

### DEVELOPER

National Diabetes Quality Improvement Alliance

### ADAPTATION

Measure was not adapted from another source.

### RELEASE DATE

2003 May

#### MEASURE STATUS

This is the current release of the measure.

#### SOURCE(S)

National Diabetes Quality Improvement Alliance performance measurement set for adult diabetes. Chicago (IL): National Diabetes Quality Improvement Alliance; 2003 May 1. 11 p.

#### MEASURE AVAILABILITY

The individual measure, "Percentage of Patients with at Least One LDL-C Test," is published in the "National Diabetes Quality Improvement Alliance Performance Measurement Set for Adult Diabetes." This document is available in Portable Document Format (PDF) from the [National Diabetes Quality Improvement Alliance Web site](#).

#### NQMC STATUS

This NQMC summary was completed by ECRI on December 9, 2003. The information was verified by the measure developer on August 19, 2004.

#### COPYRIGHT STATEMENT

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